Fig. 1

CAGCCTGCCA	CTTGCCTCCC	TGCCTGCTTC	TGGCTGCCTT
GAATGCCTGG	TCCTTCAAGC	TCCTTCTGGG	TCTGACAAAG
CAGGGACCAT	GTCTACCTTT	GGCTACCGAA	GAGGACTCAG
TAAATACGAA	TCCATCGACG	AGGATGAACT	CCTCGCCTCC
CTGTCAGCCG	AGGAGCTGAA	GGAGCTAGAG	AGAGAGTTGG
AAGACATTGA	ACCTGACCGC	AACCTTCCCG	TGGGGCTAAG
GCAAAGAGC	CTGACAGAGA	AAACCCCAC	AGGGACATTC
AGCAGAGAGG	CACTGATGGC	CTATTGGGAA	AAGGAGTCCC
AAAAACTCTT	GGAGAAGGAG	AGGCTGGGGG	AATGTGGAAA
GGTTGCAGAA	GACAAAGAGG	AAAGTGAAGA	AGAGCTTATC
TTTACTGAAA	GTAACAGTGA	GGTTCTGAG	GAAGTGTATA
CAGAGGAGGA	GGAGGAGGAG	TCCCAGGAGG	AAGAGGAGGA
AGAAGACAGT	GACGAAGAGG	AAAGAACAAT	TGAAACTGCA
AAAGGGATTA	ATGGAACTGT	AAATTATGAT	AGTGTCAATT
CTGACAACTC	TAAGCCAAAG	ATATTTAAAA	GTCAAATAGA
GAACATAAAT	TTGACCAATG	GCAGCAATGG	GAGGAACACA
GAGTCCCCAG	CTGCCATTCA	CCCTTGTGGA	AATCCTACAG
TGATTGAGGA	CGCTTTGGAC	AAGATTAAAA	GCAATGACCC
TGACACCACA	GAAGTCAATT	TGAACAACAT	TGAGAACATC
ACAACACAGA	CCCTTACCCG	CTTTGCTGAA	GCCCTCAAGG
ACAACACTGT	GGTGAAGACG	TTCACTCTGG	CCAACACGCA
TGCCGACGAC	AGTGCAGCCA	TGGCCATTGC	AGAGATGCTC
AAAGCCAATG	AGCACATCAC	CAACGTAAAC	GTCGAGTCCA
ACTTCATAAC	GGGAAAGGGG	ATCCTGGCCA	TCATGAGAGC
TCTCCAGCAC	AACACGGTGC	TCACGGAGCT	GCGTTTCCAT

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AACCAGAGGC    ACATCATGGG    CAGCCAGGTG    GAAATGGAGA
TTGTCAAGCT    GCTGAAGGAG    AACACGACGC    TGCTGAGGCT
GGGATACCAT    TTTGAACTCC    CAGGACCAAG    AATGAGCATG
ACGAGCATTT    TGACAAGAAA    TATGGATAAA    CAGAGGCAAA
AACGTTTGCA    GGAGCAAAAA    CAGCAGGAGG    GATACGATGG
AGGACCCAAT    CTTAGGACCA    AAGTCTGGCA    AAGAGGAACA
CCTAGCTCTT    CACCTTATGT    ATCTCCCAGG    CACTCACCCT
GGTCATCCCC    AAAACTCCCC    AAAAAAGTCC    AGACTGTGAG
GAGCCGTCCT    CTGTCTCCTG    TGGCCACACT    TCCTCCTCCT
CCCCCTCCTC    CTCCTCCTCC    CCCTCCTTCT    TCCCAAAGGC
TGCCACCACC    TCCTCCTCCT    CCCCCTCCTC    CACTCCCAGA
GAAAAAGCTC    ATTACCAGAA    ACATTGCAGA    AGTCATCAAA
CAACAGGAGA    GTGCCCAACG    GGCATTACAA    AATGGACAAA
AAAAGAAAAA    AGGGAAAAAG    GTCAAGAAAC    AGCCAAACAG
TATTCTAAAG    GAAATAAAAA    ATTCTCTGAG    GTCAGTGCAA
GAGAAGAAAA    TGGAAGACAG    TTCCCGACCT    TCTACCCCAC
AGAGATCAGC    TCATGAGAAT    CTCATGGAAG    CAATTCGGGG
AAGCAGCATA    AAACAGCTAA    AGCGGGTGGA    AGTTCCAGAA
GCCCTGCGAT    GGGAACATGA    TCTTTAGAAG    AGGATGCAGA
ACTGTTCAGT    GGTATTACAT    GAAATGCATT    GTGAGATGTT
TCTAAATAC     CTTCTTCAAT    TCAAAATGAT    CCCTGACTTT
AAAATAATC     TCACCCATTA    ATTCCAAAGA    GAATCTTAAG
AACAATCAG     CATGTTTCTT    CTGTAAATAT    GAAAATAAAT
TTCTTTTTTA    TGTCGT-poly(A)-tail
```

Fig. 2

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CAGCCTGCCA    CTTGCCTCCC    TGCCTGCTTC    TGGCTGCCTT
GAATGCCTGG    TCCTTCAAGC    TCCTTCTGGG    TCTGACAAAG
CAGGGACCAT    GTCTACCTTT    GGCTACCGAA    GAGGACTCAG
TAAATACGAA    TCCATCGACG    AGGATGAACT    CCTCGCCTCC
CTGTCAGCCG    AGGAGCTGAA    GGAGCTAGAG    AGAGAGTTGG
AAGACATTGA    ACCTGACCGC    AACCTTCCCG    TGGGGCTAAG
GCAAAAGAGC    CTGACAGAGA    AAACCCCAC     AGGGACATTC
AGCAGAGAGG    CACTGATGGC    CTATTGGGAA    AAGGAGTCCC
AAAAACTCTT    GGAGAAGGAG    AGGCTGGGGG    AATGTGGAAA
GGTTGCAGAA    GACAAAGAGG    AAAGTGAAGA    AGAGCTTATC
TTTACTGAAA    GTAACAGTGA    GGTTTCTGAG    GAAGTGTATA
CAGAGGAGGA    GGAGGAGGAG    TCCCAGGAGG    AAGAGGAGGA
AGAAGACAGT    GACGAAGAGG    AAAGAACAAT    TGAAACTGCA
AAAGGGATTA    ATGGAACTGT    AAATTATGAT    AGTGTCAATT
CTGACAACTC    TAAGCCAAAG    ATATTTAAAA    GTCAAATAGA
GAACATAAAT    TTGACCAATG    GCAGCAATGG    GAGGAACACA
GAGTCCCCAG    CTGCCATTCA    CCCTTGTGGA    AATCCTACAG
TGATTGAGGA    CGCTTTGGAC    AAGATTAAAA    GCAATGACCC
TGACACCACA    GAAGTCAATT    TGAACAACAT    TGAGAACATC
ACAACACAGA    CCCTTACCCG    CTTTGCTGAA    GCCCTCAAGG
ACAACACTGT    GGTGAAGACG    TTCAGTCTGG    CCAACACGCA
TGCCGACGAC    AGTGCAGCCA    TGGCCATTGC    AGAGATGCTC
AAAGCCAATG    AGCACATCAC    CAACGTAAAC    GTCGAGTCCA
ACTTCATAAC    GGGAAAGGGG    ATCCTGGCCA    TCATGAGAGC
TCTCCAGCAC    AACACGGTGC    TCACGGAGCT    GCGTTTCCAT
AACCAGAGGC    ACATCATGGG    CAGCCAGGTG    GAAATGGAGA
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TTGTCAAGCT    GCTGAAGGAG    AACACGACGC    TGCTGAGGCT
GGGATACCAT    TTTGAACTCC    CAGGACCAAG    AATGAGCATG
ACGAGCATTT    TGACAAGAAA    TATGGATAAA    CAGAGGCAAA
AACGTTTGCA    GGAGCAAAAA    CAGCAGGAGG    GATACGATGG
AGGACCCAAT    CTTAGGACCA    AAGTCTGGCA    AAGAGGAACA
CCTAGCTCTT    CACCTTATGT    ATCTCCCAGG    CACTCACCCT
GGTCATCCCC    AAAACTCCCC    AAAAAAGTCC    AGACTGTGAG
GAGCCGTCCT    CTGTCTCCTG    TGGCCACACT    TCCTCCTCCT
CCCCCTCCTC    CTCCTCCTCC    CCCTCCTTCT    TCCCAAAGGC
TGCCACCACC    TCCTCCTCCT    CCCCCTCCTC    CACTCCCAGA
GAAAAAGCTC    ATTACCAGAA    ACATTGCAGA    AGTCATCAAA
CAACAGGAGA    GTGCCCAACG    GGCATTACAA    AATGGACAAA
AAAAGAAAAA    AGGGAAAAAG    GTCAAGAAAC    AGCCAAACAG
TATTCTAAAG    GAAATAAAAA    ATTCTCTGAG    GTCAGTGCAA
GAGAAGAAAA    TGGAAGACAG    TTCCCGACCT    TCTACCCCAC
AGAGATCAGC    TCATGAGAAT    CTCATGGAAG    CAATTCGGGG
AAGCAGCATA    AAACAGCTAA    AGCGGGTGGA    AGTTCCAGAA
GCCCTGCGAT    GGGAACATGA    TCTTTAGAAG    AGGATGCAGA
ACTGTTCAGT    GGTATTACAT    GAAATGCATT    GTGAGATGTT
TCTAAAATAC    CTTCTTCAAT    TCAAAATGAT    CCCTGACTTT
AAAAATAATC    TCACCCATTA    ATTCCAAAGA    GAATCTTAAG
AAACAATCAG    CATGTTCTT     CTGTAAATAT    GAAAATAAAT
TTCTTTTTA     TGTCGTGAGA    TTTGTATTGG    CAAGAAGCAG
TTAATTTAAA    GATGCTCTTC    CTATCTGTGG    ATGTGTTGGT
AACTCCGAGT    TGTAATGAGT    TCATGAAATG    TGCTGTTATT
TTTGTAATCT    CAATAAATGT    GGATTGAAGT    TTTTTCCCTT
-poly(A)-tail
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Fig. 3

CAGCCTGCCA	CTTGCCTCCC	TGCCTGCTTC	TGGCTGCCTT
GAATGCCTGG	TCCTTCAAGC	TCCTTCTGGG	TCTGACAAAG
CAGGGACCAT	GTCTACCTTT	GGCTACCGAA	GAGGACTCAG
TAAATACGAA	TCCATCGACG	AGGATGAACT	CCTCGCCTCC
CTGTCAGCCG	AGGAGCTGAA	GGAGCTAGAG	AGAGAGTTGG
AAGACATTGA	ACCTGACCGC	AACCTTCCCG	TGGGGCTAAG
GCAAAGAGC	CTGACAGAGA	AAACCCCAC	AGGGACATTC
AGCAGAGAGG	CACTGATGGC	CTATTGGGAA	AAGGAGTCCC
AAAAACTCTT	GGAGAAGGAG	AGGCTGGGGG	AATGTGGAAA
GGTTGCAGAA	GACAAGAGG	AAAGTGAAGA	AGAGCTTATC
TTTACTGAAA	GTAACAGTGA	GGTTCTGAG	GAAGTGTATA
CAGAGGAGGA	GGAGGAGGAG	TCCCAGGAGG	AAGAGGAGGA
AGAAGACAGT	GACGAAGAGG	AAAGAACAAT	TGAAACTGCA
AAAGGGATTA	ATGGAACTGT	AAATTATGAT	AGTGTCAATT
CTGACAACTC	TAAGCCAAAG	ATATTTAAAA	GTCAAATAGA
GAACATAAAT	TTGACCAATG	GCAGCAATGG	GAGGAACACA
GAGTCCCCAG	CTGCCATTCA	CCCTTGTGGA	AATCCTACAG
TGATTGAGGA	CGCTTTGGAC	AAGATTAAAA	GCAATGACCC
TGACACCACA	GAAGTCAATT	TGAACAACAT	TGAGAACATC
ACAACACAGA	CCCTTACCCG	CTTTGCTGAA	GCCCTCAAGG
ACAACACTGT	GGTGAAGACG	TTCAGTCTGG	CCAACACGCA
TGCCGACGAC	AGTGCAGCCA	TGGCCATTGC	AGAGATGCTC
AAAGCCAATG	AGCACATCAC	CAACGTAAAC	GTCGAGTCCA
ACTTCATAAC	GGGAAGGGG	ATCCTGGCCA	TCATGAGAGC
TCTCCAGCAC	AACACGGTGC	TCACGGAGCT	GCGTTTCCAT
AACCAGAGGC	ACATCATGGG	CAGCCAGGTG	GAAATGGAGA

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TTGTCAAGCT    GCTGAAGGAG    AACACGACGC    TGCTGAGGCT
GGGATACCAT    TTTGAACTCC    CAGGACCAAG    AATGAGCATG
ACGAGCATTT    TGACAAGAAA    TATGGATAAA    CAGAGGCAAA
AACGTTTGCA    GGAGCAAAAA    CAGCAGGAGG    GATACGATGG
AGGACCCAAT    CTTAGGACCA    AAGTCTGGCA    AAGAGGAACA
CCTAGCTCTT    CACCTTATGT    ATCTCCCAGG    CACTCACCCT
GGTCATCCCC    AAAACTCCCC    AAAAAAGTCC    AGACTGTGAG
GAGCCGTCCT    CTGTCTCCTG    TGGCCACACT    TCCTCCTCCT
CCCCCTCCTC    CTCCTCCTCC    CCCTCCTTCT    TCCCAAAGGC
TGCCACCACC    TCCTCCTCCT    CCCCCTCCTC    CACTCCCAGA
GAAAAAGCTC    ATTACCAGAA    ACATTGCAGA    AGTCATCAAA
CAACAGGAGA    GTGCCCAACG    GGCATTACAA    AATGGACAAA
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TATTCTAAAG    GAAATAAAAA    ATTCTCTGAG    GTCAGTGCAA
GAGAAGAAAA    TGGAAGACAG    TTCCCGACCT    TCTACCCCAC
AGAGATCAGC    TCATGAGAAT    CTCATGGAAG    CAATTCGGGG
AAGCAGCATA    AAACAGCTAA    AGCGGGTGGA    AGTTCCAGAA
GCCCTGCGAT    GGGAACATGA    TCTTTAGAAG    AGGATGCAGA
ACTGTTCAGT    GGTATTACAT    GAAATGCATT    GTGAGATGTT
TCTAAAATAC    CTTCTTCAAT    TCAAAATGAT    CCCTGACTTT
AAAAATAATC    TCACCCATTA    ATTCCAAAGA    GAATCTTAAG
AAACAATCAG    CATGTTTCTT    CTGTAAATAT    GAAAATAAAT
TTCTTTTTTA    TGTCGTGAGA    TTTGTATTGG    CAAGAAGCAG
TTAATTTAAA    GATGCTCTTC    CTATCTGTGG    ATGTGTTGGT
AACTCCGAGT    TGTAATGAGT    TCATGAAATG    TGCTGTTATT
TTTGTAATCT    CAATAAATGT    GGATTGAAGT    TTTTTCCCTT
TTTTTAAAGC    CAAACTAATA    TTTTTCTGTG    ACTTGATACA
TCTGTCAGAT    TTTTGTAATC    TCGATAAATG    TGTATTGAAG
```

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TTTTTCCCT    TTTTTAAAA  AGCCAAACTA  ATATTTTTCT
GTGAGTTAAT   ACATCTGTCAG GTGTGTATGT AACATTACTG
GACATTAAAA   AAAATTATTAC ATTCTC-poly(A)-tail
```

Fig. 4

```
MSTFGYRRGL   SKYESIDEDE   LLASLSAEEL   KELERELEDI
EPDRNLPVGL   RQKSLTEKTP   TGTFSREALM   AYWEKESQKL
LEKERLGECG   KVAEDKEESE   EELIFTESNS   EVSEEVYTEE
EEEESQEEEE   EEDSDEEERT   IETAKGINGT   VNYDSVNSDN
SKPKIFKSQI   ENINLTNGSN   GRNTESPAAI   HPCGNPTVIE
DALDKIKSND   PDTTEVNLNN   IENITTQTLT   RFAEALKDNT
VVKTFSLANT   HADDSAAMAI   AEMLKANEHI   TNVNVESNFI
TGKGILAIMR   ALQHNTVLTE   LRFHNQRHIM   GSQVEMEIVK
LLKENTTLLR   LGYHFELPGP   RMSMTSILTR   NMDKQRQKRL
QEQKQQEGYD   GGPNLRTKVW   QRGTPSSSPY   VSPRHSPWSS
PKLPKKVQTV   RSRPLSPVAT   LPPPPPPPPP   PPPSSQRLPP
PPPPPPPPLP   EKKLITRNIA   EVIKQQESAQ   RALQNGQKKK
KGKKVKKQPN   SILKEIKNSL   RSVQEKKMED   SSRPSTPQRS
AHENLMEAIR   GSSIKQLKRV   EVPEALRWEH   DL.
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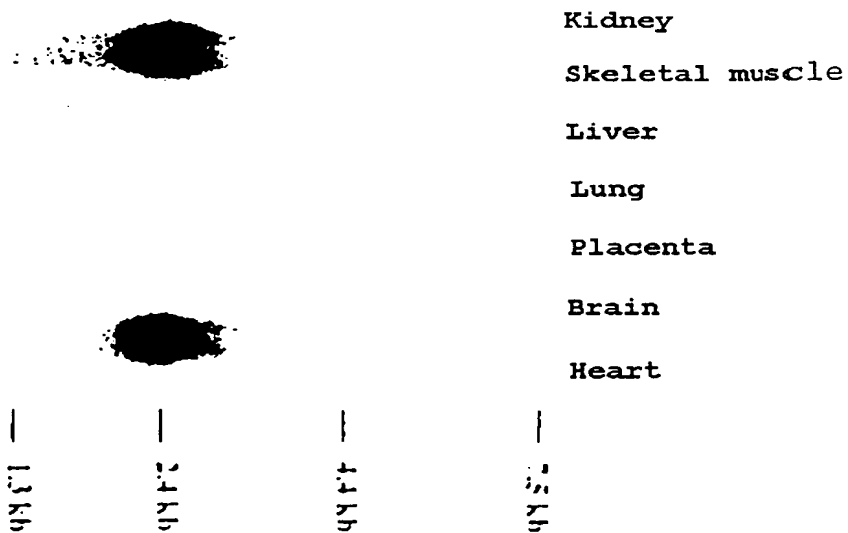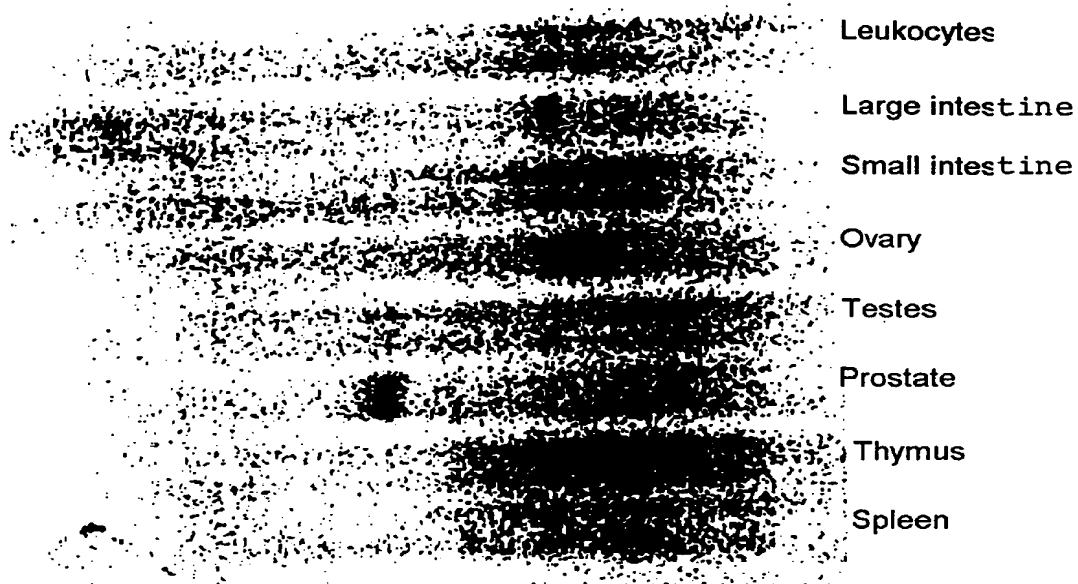
09/44532

Leukocytes

Large intestine

Small intestine

Ovary

Testes

Prostate

Thymus

Spleen

Kidney

Skeletal muscle

Liver

Lung

Placenta

Brain

Heart

Fig. 5a

Fig. 5b

healthy   insufficient

- 2.4 kb

- 0.6 kb

Control: Thymosin